

## U.S. EPA CONSOLIDATED COMMENTS TO INDIANA'S DRAFT 303D/IR FOR THE 2010 CYCLE

1) Page 19 Attachment 1, the figure and table numbers do not match the text.

*IDEM Response:* IDEM has reviewed all references in the finalized 303(d) list narrative to the figures and tables in the document to ensure accurate linkages.

2) Page 24, Water Quality Assessment Decisions, 4th paragraph 1st sentence, "or" should be "for".

*IDEM Response:* This has been corrected.

3) Page 26, Table 9 (should be Table 1), in the row titled "Tier I and Tier II Toxicants", there are two columns marked "Fully Supporting".

*IDEM Response:* This section has been removed from the table based on IDEM's decision not to use Tier I criteria and Tier II values for 305(b) assessments and 303(d) listing decisions. This decision is described in more detail in the finalized 303(d) narrative submission.

4) Page 26, Table 9 in the row titled "Benthic aquatic macroinvertebrate Index of Biotic Integrity", the text in the table does not reflect the changes that are referred to in the text on pages 44 and 45 and in Table 21, and the use of the new multi-habitat method with the index that scores in the 12-60 range.

*IDEM Response:* While IDEM has discontinued the use of the original macroinvertebrate methods shown in Table 9, IDEM's adoption of these new methods does not invalidate the previous methods or any prior assessments based on them. Because previously identified impairments based on IDEM's original methods have been retained in Category 5, the methods used to identify them must likewise be retained in Table 9. Therefore, IDEM will add the information on the new methods to Table 9 and retain the information regarding IDEM's previous methods.

5) Page 44, Aquatic Life Use Assessments, Use Support Criteria for Biological Data; the last sentence should be clarified to read that water bodies listed under category 4C are only those that have no pollutants that have been identified in addition to the habitat.

*IDEM Response:* This section of the narrative has been revised to more accurately reflect the way IDEM incorporates habitat evaluations into its assessment and listing processes.

6) For the biological assessments, please describe how the thresholds were determined between supporting and not supporting and provide some indication of how these thresholds relate to the State's reference condition.

*IDEM Response:* Indices of Biotic Integrity (IBI) for fish and macroinvertebrate IBI (mIBI) assessment scores, or both, were calculated and compared to regionally calibrated models. In evaluating fish communities, streams rating as "fair" or worse are classified as nonsupporting for aquatic life uses. For benthic aquatic macroinvertebrate communities, individual sites are compared to a statewide calibration at the lowest practical level of identification for Indiana. All sites at or above background for the calibration are considered to be supporting aquatic life uses. Those sites rated as moderately or severely impaired in the calibration are considered to be nonsupporting. Waters with identified impairments to one/more biological communities are considered not supporting aquatic life use. The biological thresholds Indiana uses to make use attainment decisions are provided in Table 12 of IDEM's CALM to provide greater context for understanding the range of biological condition that is considered either fully supporting or impaired.

- 7) It appears that in Table 15, the first scenario under “not supporting” for lakes should be  $>54$  ug/L and not  $<54$  ug/L. A parallel situation occurs for reservoirs.

*IDEM Response:* This table has been revised accordingly.

- 8) Currently Indiana is using TP thresholds based on the LimnoTech analysis. Once numeric nutrient criteria are adopted and approved by EPA, if those criteria are different than the current thresholds, Indiana should revise the phosphorus assessment thresholds for lakes and reservoirs to reflect the adopted phosphorus criteria and should include nitrogen assessment thresholds that reflect adopted nitrogen criteria.

*IDEM's Response:* IDEM states in its methodology that when nutrient criteria for lakes are formally adopted, those criteria will replace the benchmarks IDEM currently uses to make designated use support assessments for lakes and reservoirs. The CALM will be revised accordingly. However, until nutrient criteria are fully developed, successfully promulgated into Indiana's WQS, and subsequently approved by U.S. EPA, it is not possible to identify the specific nutrient indicators that will be incorporated into the CALM.

- 9) For nutrient lake assessments, how many samples need to be collected each year?

*IDEM Response:* IDEM assesses nutrient condition of natural lakes and reservoirs for aesthetics within the context of recreational use. As noted in Table 9 of IDEM's consolidated Assessment and Listing Methodology, such assessments require a minimum of three total phosphorus results with corresponding Chlorophyll a results collected over three years (consecutive or nonconsecutive).

- 10) According to the 2008 state assessment data in ATTAINS, only 8-9 % of lake acres assessed (82,143 acres) were determined to be impaired due to phosphorus (7023 acres), even though it would seem that approximately 50-75% of their lakes fall above the TP assessment cutoff of 54 ug/L TP. This suggests that IDEM may want to review the impairment methodology for lakes, including the chl a and TSI thresholds.

*IDEM Response:* One reason that the information in the U.S. EPA's ATTAINS database appears to under report the acres impaired by phosphorus is that not all of Indiana's lakes have been assessed as compared to those for which IDEM has data. To date, IDEM has assessed for recreational use (aesthetics) all the natural lakes for which there is sufficient data and anticipates completion of all reservoirs for which there are sufficient data by the 2012 cycle. Another factor to consider is that IDEM's methodology for assessing impairment of this use requires more than just an exceedance of the applicable TP threshold. Exceedances of the TP threshold must be coincident with either high concentrations of chl a (a response variable) or a TSI value indicating eutrophic or hypereutrophic conditions.

- 11) What are the general guidelines that staff uses in assessing whether algal conditions are excessive?

*IDEM Response:* Generally, IDEM relies on the best professional judgment of its scientists who have the necessary expertise to distinguish between algal conditions that are natural for a stream from those that are excessive as a result of anthropogenic nutrient loadings. . It should be noted that such observations alone are insufficient for the purposes of assessment and must co-occur with other indicators of nutrient enrichment in order to be used to identify a nutrient impairment. More recently, IDEM's nutrient sampling program conducted over the past nine years has provided quantitative algal data from which means/median values for each basin can be derived. While these data are not used independently to assess algal condition, the mean/median values derived from them provide a quantitative means of calibrating qualitative observations of algal conditions in the field.

12) For nutrient stream assessments, does the methodology assume three sampling events **per year**?

*IDEM Response: Yes.*

13) Once nutrient numeric criteria are adopted, Indiana should revise the assessment thresholds for streams and rivers to reflect the adopted criteria.

*IDEM Response: When nutrient criteria for streams are adopted for Indiana, IDEM will develop methods for implementing the new criteria in its 305(b)/303(d) assessment and listing processes. When this work is complete, IDEM will replace the nutrient benchmarks and assessment methodology currently in use with the new criteria and corresponding assessment methodology.*

14) Page 24, Table 9. For "Drinking Water Use Support – Rivers", the listing methodology covers the primary human health related parameters with the possible exception of microbiological pathogens. The assumption is presumably that conventional treatment removes these pathogens, which is reasonable in most cases.

*IDEM Response: This is correct. IDEM does not make drinking water use support assessments based on pathogen data. While high concentrations of pathogens might indicate an impairment of recreational uses on a surface waterbody with a drinking water intake, such levels will not impair its drinking water use. This is because any water withdrawn for drinking water use by a public water supply is required to be treated which will remove microbial pathogens from the water prior to its distribution for human consumption. In addition, IDEM's Drinking Water program, which implements the federal Safe Drinking Water Act requirements, has regulations in place which help to ensure that drinking water facilities adequately treat the water they withdraw from surface waterbodies, regardless of how high the concentrations of pathogens might be in the ambient water at the point of intake.*

15) Page 24, Table 9. For "Drinking Water Use Support – Lakes and Reservoirs", IDEM's listing methodology continues the historic practice of only listing lakes as impaired for drinking water use where a permit is granted to apply an herbicide to control algae growth. The state should consider expanding on this minimal criterion by incorporating the same parameters as used for rivers to their lakes assessments, especially for parameters such as nitrates where an acute health risk is present.

*IDEM Response: IDEM's methodology for determining drinking water use support for lakes and reservoirs was based on the best information available at the time it was developed and is now outdated. Given this, IDEM plans to thoroughly review and revise its drinking water use support assessment methodology for lakes and reservoirs as well as rivers and streams for the 2012 cycle.*

16) Page 27, Table 10. For "Drinking Water Use Support – Rivers", the assessment criteria should consider adding non-transient, non-community water systems (NTNCWS) in addition to community water systems since the human health impacts are presumably the same for these two types of public water systems. In addition, NTNCWS include many schools that are not part of a community water system. If there are no NTNCWSs that use surface water as a source, then a statement to this effect should be added to make clear that they were in fact considered but do not need to be included.

*IDEM Response: IDEM concurs with the need to develop a more comprehensive assessment methodology for determining drinking water use support and will consider these recommendations when updating its methodology for the 2012 cycle.*

17) Page 27, Table 10. For "Drinking Water Use Support - Lakes and Reservoirs", the same comment made above regarding Table 9 applies here.

*IDEM Response: IDEM's response to the aforementioned comment applies.*

18) On page 31, this section describes IDEM's use or planned use of site-specific criteria but links the development of these criteria to their NPDES program. It should be noted that the development and use of site-specific criteria are actual changes to the state's WQS and these criteria need to be approved by EPA as a change to the state's WQS before they can be used in any NPDES permit.

*IDEM Response:* IDEM agrees that changes to water quality criteria adopted into Indiana water quality standards must be approved by EPA before they can be used in an NPDES permit.

19) For the 303(d) impaired waters list, IDEM has decided to use two pollutants, mercury and PCBs, when determining impairment for fish consumption. IDEM's assessment is based upon EPA's mercury fish tissue criterion, which assumes a human consumption rate of fish set at 17.5 g/day. IDEM also uses this rate within the water quality standards methodology for calculating a human health PCB criterion. Both pollutants and rates of fish consumption appear to be appropriate for this section of the report, however, for other human health impacts due to toxicants, the state indicates that it will still use an outdated fish consumption rate of 6.5 g/day for human health criteria applicable to waters outside the Great Lakes basin, and a rate of 15 g/day for criteria applicable to waters within the Great Lakes basin. If using the most recent EPA recommendation of 17 g/day, the Indiana human health criteria will become more stringent and the 303(d) list could be quite different. Please consider using a consistent fish consumption rate for criteria involving human health impacts related to the consumption of fish. The State's next triennial review could be a place to discuss these types of updates to fish consumption rates and criteria calculations.

*IDEM Response:* IDEM's benchmark criteria for mercury or PCBs in fish tissue do not reflect any determination of what an appropriate fish consumption rate should be nor does it indicate that IDEM will necessarily use the lower consumption rates expressed in Indiana's WQS for the calculation of human health criterion for other substances found in fish tissue. Indeed, in its calculation of the criterion for PCBs in fish tissue, IDEM used U.S. EPA's 17.5 g/day, which is a national consumption rate and which results in a more protective criterion than either of the consumption rates expressed in Indiana's WQS for either the Great Lakes basin or downstate waters. These consumption rates are expressed in the CALM to provide context in understanding how the consumption rates used in calculating criteria and because they are the consumption rates expressed in Indiana's WQS. It should be noted that these values reflect the minimum values that should be used for calculating human health criteria and do not preclude the use of higher consumption rates when warranted either due to the substance in question or based on more robust and current information regarding fish consumption in Indiana. IDEM's information regarding fish consumption rates in Indiana is generally very limited. However, the most recent consumption studies suggest consumption rates throughout the state are much closer to the 17.5 g/day national consumption rate than those expressed in our WQS. Based on these studies, IDEM will consider the use of higher consumption rates for calculations of human health criteria for any other potentially harmful substances that might be found in fish tissue.

20) Please include which uses were supported/not supported with the submitted list and include summary tables of use support.

*IDEM Response:* This information is not a required component of Indiana's 303(d) listing, which is a subset of Indiana's Consolidated List. The information regarding which uses are supported/not supported for each waterbody assessed is instead included in the Consolidated List, which along with the summary tables requested, are included in Indiana's Integrated Water Monitoring and Assessment Report.

21) IDEM list only includes one impaired waterbody for "pesticides". Can IDEM specify which pesticide (e.g. Atrazine) is this waterbody impaired for, instead of using the general term?

*IDEM response:* The pesticides impairment on Indiana's 303(d) list is what IDEM commonly refers to as a "relict" listing. Relict listings are impairments based on assessments that were made prior to IDEM's development of a formalized CALM and for which the original basis may or may not be known. These impairments must remain on the 303(d) list until IDEM can demonstrate "good cause" for removing them. The original basis for this impairment is unknown at this time. In order to determine whether or not the listing is still valid, IDEM must first find and review the data and criteria used to make the original assessment. Such investigations can be very time consuming and are typically conducted as part of IDEM's ongoing QAQC of its 303(d) list and ADB as time allows. IDEM will not have sufficient time to investigate this listing further until later in 2010 when IDEM will have more time for QAQC.

22) Did IDEM consider any additional data available, such as data from the Office of State Chemist, for its pesticides assessments?

*IDEM Response:* IDEM does not currently assess for pesticides in surface waters because the Agency does not have methodology for such assessments. IDEM's monitoring for pesticides has also been limited in the past due to resource constraints. More recently, IDEM has been in communication with the Office of the State Chemist as well as some external organizations that might have pesticide data to explore opportunities for greater data sharing. However, even if such opportunities exist, IDEM will have to develop an appropriate and scientifically defensible assessment methodology for pesticides in order to use any data provided by these organizations in its assessment and listing processes. IDEM anticipates that the development of an assessment and listing methodology for pesticides will take a great deal of time and will necessarily have to prioritize this need within the context of other Office of Water priorities.

23) Given the public interest on pesticide levels, more specifically Atrazine, present in drinking water (see New York Times article link <http://www.nytimes.com/2009/08/23/us/23water.html>). Can IDEM at least provide more information or commentary on pesticide issues in the waters of the state?

*IDEM Response:* IDEM agrees that pesticides are an important issue with regard to water quality. IDEM discontinued its Pesticides Monitoring program due to resource constraints and the fact that the agency does not yet have a methodology that would allow the agency to use the data collected to make designated use assessments. During the time the Pesticide Monitoring program was operational, IDEM collected sufficient data to develop two water quality reports, one for the Upper Wabash River basin and another for the Lower Wabash River and Kankakee River basins, both of which are available on IDEM's web site at: <http://www.in.gov/idem/4677.htm>.

24) For those waterbodies listed as impaired by "nutrients", can IDEM specify which "nutrients", instead of using the general term?

*IDEM Response:* Listing individual pollutants contributing to an identified nutrient impairment is not possible at this time. This is because IDEM's methodology requires co-occurring exceedances of two or more nutrient benchmarks, which may not indicate impairment if considered independently. It is also important to note that the benchmarks and methodology currently in use were developed to consider synergistic effects of nutrient enrichment, not to identify specific pollutants contributing to a nutrient impairment. In order to identify and list the specific pollutant(s) contributing to an identified nutrient impairment, IDEM must first adopt numeric criteria and develop an assessment methodology appropriate for the criteria adopted.



25) Related to Attachment 5: Can't find the following segments listed in the 2008 cycle list

BASIN NAME	HYDROLOGIC UNIT CODE	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
GREAT MIAMI	50800030802	ING0382_T1001	BLUE CREEK - UNNAMED TRIBUTARY	E. COLI
GREAT MIAMI	50800030802	ING0382_T1002	BLUE CREEK - UNNAMED TRIBUTARY	E. COLI
GREAT MIAMI	50800030802	ING0382_T1003	NEUKAM BRANCH	E. COLI
GREAT MIAMI	50800030802	ING0382_T1004	BLUE CREEK - UNNAMED TRIBUTARY	E. COLI

*IDEM Response:* These reaches do not appear on Indiana's 2008 303(d) list because they are new reaches resulting from the resegmentation of ING0382\_00, which was identified as impaired through IDEM's rotating basin assessments in 2009. The impairment identified on ING0382\_00 was carried over to the resulting new reaches until the necessary reassessment could be completed to determine its extent. The reassessment was completed prior to the development of the draft list. These reaches were found to be fully supporting and therefore do not appear in the finalized 303(d) list. The new AU to which the impairment applies in ING0382\_01, which appeared as an addition to Category 5 in Attachment 9 of the draft 303(d) list document and has been incorporated into the finalized list. This resegmentation as associated impairment information may be tracked using the resegmentation table provided with IDEM's finalized list submission.

26) Related to Attachment 4: The following impairment was not listed previously in Cat5

ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT	TMDL
INB074A_T1048	Heavilon Ditch - headwater	IMPAIRED BIOTIC COMMUNITIES	G

*IDEM Response:* This reach is impaired for dissolved oxygen and E. coli only and was included in Attachment 4 in error. This has been corrected. IDEM does not have any biological data indicating impairment of this assessment unit.

27) The following segment was found to be delisted but no delisting reason was provided. Please provide delisting reasons.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INA03A4_P1044	ST. JOSEPH RESERVOIR	MERCURY in FISH TISSUE	GREAT LAKES	4100003100040	ALLEN CO
INA03A4_P1044	ST. JOSEPH RESERVOIR	PCBs in FISH TISSUE	GREAT LAKES	4100003100040	ALLEN CO

*IDEM Response:* These AUIDs do not represent real waterbodies. Rather they represent artificial flow paths through a lake or reservoir, which are included in IDEM's Reach Index for the purposes of hydrologic modeling. Their inclusion in the 2008 303(d) list was an error. The St. Joseph Reservoir is correctly listed for these impairments in Attachment 11 of the draft list as INA03P1044\_00.

28) The following segments/impairments appear still listed in Cat5 (Attachment 11), but also appear delisted under Attachment 7. Please clarify and fix these inconsistencies.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB11GD_00	BUSSEY CREEK - TANYARD BRANCH	SULFATES	LOWER WABASH	5120111160130	SULLIVAN CO
INE0195_00	LITTLE SANDY CREEK	SULFATES	OHIO TRIBUTARIES	5140201090050	SPENCER CO
INE01F8_T1007	LITTLE PIGEON CREEK	SULFATES	OHIO TRIBUTARIES	5140201150080	WARRICK CO

*IDEM Response:* These impairments were correctly delisted based on IDEM's statewide reassessment of sulfate and the reasons shown in Attachment 7 of the draft list. They were carried over to Category 5 (Attachment 11) in error and have been removed.

29) The following segments appear in Attachment 1 as AUID retired, but also appear listed in Cat5 (Attachment 11). Please clarify and fix these inconsistencies.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
ING0316_T1004	WHITEWATER RIVER, WEST FORK	IMPAIRED BIOTIC COMMUNITIES	GREAT MIAMI	5080003010060	WAYNE CO
ING0324_00	GREENS FORK CREEK - WILLIAMSBURG CREEK	MERCURY in FISH TISSUE	GREAT MIAMI	5080003020040	WAYNE CO
ING0327_T1001	MIXED CREEK	E. COLI	GREAT MIAMI	5080003020070	FAYETTE CO
ING0327_T1006	WHITEWATER RIVER - WEST FORK	MERCURY in FISH TISSUE	GREAT MIAMI	5080003020070	WAYNE CO
ING0333_00	NOLANDS FORK	IMPAIRED BIOTIC COMMUNITIES	GREAT MIAMI	5080003030030	WAYNE CO
INK019B_02	LUDINGTON DITCH	IMPAIRED BIOTIC COMMUNITIES	UPPER ILLINOIS	7120001090110	PORTER CO

*IDEM Response:* The impairments associated with these original reaches were carried over to Category 5 (Attachment 11) in error. They correctly appeared in Attachment 6 of the draft 303(d) list document as delistings due to resegmentation and have since been removed from the finalized 303(d) list. These impairments now appear in the finalized 303(d) list associated with the new AUIDs resulting from their resegmentation. The segmentation tracking table provided in IDEM's finalized 303(d) list submission identifies the reaches resulting from resegmentation, which will allow U.S. EPA to verify that these impairments were correctly accounted for on IDEM's finalized list.

30) The following segment/impairment appear still listed in Cat5 (Attachment 11), but also appears delisted under Attachment 4a. Please clarify and fix this inconsistency.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INW0145_T1016	KILLBUCK CREEK	E. COLI	WEST FORK WHITE	5120201040050	MADISON CO

*IDEM Response:* This impairment was correctly delisted based on TMDL approval and was carried over to Category 5 (Attachment 11) in error. This impairment no longer appears in Category 5 of IDEM's finalized list.

31) The following segments/impairments have approved TMDLs and should be included under Cat4A (Attachment 4a). Please fix.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB0749_00	KILMORE CREEK	E. COLI	UPPER WABASH	5120107040090	CLINTON CO
INB074A_T1048	HEAVILON DITCH - HEADWATER	DISSOLVED OXYGEN	UPPER WABASH	5120107040100	CLINTON CO
ING0313_00	NETTLE CREEK	E. COLI	GREAT MIAMI	5080003010030	WAYNE CO

*IDEM Response:* INB0749\_00 and INB074A\_T1048 have been correctly added to Category 4A based on the approved TMDL. ING0313\_00 was resegmented for the purposes of TMDL development for the West Fork Whitewater River. The TMDL that addresses this impairment was approved at the time IDEM's segmentation tracking process was still under development. Once IDEM's resegmentation processes were finalized, this watershed was re-indexed again to ensure consistency with other basins now being re-indexed. As a result of this second resegmentation, the impairments for which the original

TMDL was approved do not match IDEM's records. IDEM will work with U.S. EPA on this TMDL to ensure proper segmentation tracking of impairments approved in the original TMDL. Therefore, for the 2010 cycle, the impairments associated with the new AUIDs resulting from the resegmentation conducted for the West Fork Whitewater River TMDL have been added to Category 5. The segmentation tracking table provided in IDEM's finalized 303(d) list submission identifies the reaches resulting from resegmentation and will allow U.S. EPA to verify that these impairments were correctly accounted for on IDEM's finalized list.

32) The following segments/impairments, which appear under Attachment 4a as proposed to be delisted and moved to Cat4A due to a completed TMDL, are covered under TMDLs (TMDL Key B, C, D, E, F) that are currently in draft status and not yet approved. If these TMDLs are not approved by the date when the Indiana's final 303(d) List of Impaired Waters is submitted to the U.S. EPA, these segments/impairments will remain listed under Cat5.

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB0711_00	GRASSY FORK DITCH - HARPER DITCH	E. COLI	UPPER WABASH	5120107010010	HOWARD CO
INB0713_00	MUD CREEK - HEADWATERS (TIPTON)	E. COLI	UPPER WABASH	5120107010030	TIPTON CO
INB0714_00	MUD CREEK	E. COLI	UPPER WABASH	5120107010040	TIPTON CO
INB0714_T1001	ROSS DITCH	E. COLI	UPPER WABASH	5120107010040	TIPTON CO
INB0714_T1002	NORTH CREEK	E. COLI	UPPER WABASH	5120107010040	TIPTON CO
INB0714_T1003	OFF DITCH	E. COLI	UPPER WABASH	5120107010040	TIPTON CO
INB0716_T1030	TURKEY CREEK	E. COLI	UPPER WABASH	5120107010060	TIPTON CO
INB0717_00	MUD CREEK	E. COLI	UPPER WABASH	5120107010070	HOWARD CO
INB0717_T1001	WILDCAT CREEK	E. COLI	UPPER WABASH	5120107010070	HOWARD CO
INB0717_T1031	MUD CREEK - IRWIN CREEK	E. COLI	UPPER WABASH	5120107010070	HOWARD CO
INB0718_T1002	WILDCAT CREEK - JEROME	E. COLI	UPPER WABASH	5120107010080	HOWARD CO
INB071A_00	STAHL DITCH	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071A_T1005	PRAIRIE CREEK DITCH - UPPER	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071A_T1006	WILDCAT CREEK - MAINSTEM	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071A_T1025	WILDCAT CREEK - UPSTREAM OF WATER INTAKE	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071A_T1032	PRAIRIE CREEK DITCH - LOWER	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071A_T1033	CANNON - GOYER DITCH	E. COLI	UPPER WABASH	5120107010100	HOWARD CO
INB071B_00	FINN DITCH AND OTHER TRIBUTARIES	E. COLI	UPPER WABASH	5120107010110	HOWARD CO
INB071B_T1007	KOKOMO CREEK - HEADWATERS	E. COLI	UPPER WABASH	5120107010110	HOWARD CO
INB0721_T1008	WILDCAT CREEK (UPSTREAM OF SPRING RUN)	E. COLI	UPPER WABASH	5120107020010	HOWARD CO
INB0721_T1009	WILDCAT CREEK (DOWNSTREAM OF SPRING RUN)	E. COLI	UPPER WABASH	5120107020010	HOWARD CO
INB0721_T1011	HALIHAN DITCH	E. COLI	UPPER WABASH	5120107020010	HOWARD CO



WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB0722_00	LITTLE WILDCAT CREEK - EAST FORK	E. COLI	UPPER WABASH	5120107020020	HOWARD CO
INB0722_T1009	KELLY WEST DITCH	E. COLI	UPPER WABASH	5120107020020	TIPTON CO
INB0722_T1035	UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020020	TIPTON CO
INB0722_T1036	LITTLE WILDCAT CREEK - WEST FORK	E. COLI	UPPER WABASH	5120107020020	HOWARD CO
INB0723_00	VOGUS DITCH	E. COLI	UPPER WABASH	5120107020030	HOWARD CO
INB0723_T1001	LYNN RUN	E. COLI	UPPER WABASH	5120107020030	HOWARD CO
INB0723_T1002	BUTLER DITCH	E. COLI	UPPER WABASH	5120107020030	HOWARD CO
INB0723_T1010	LITTLE WILDCAT CREEK (UPSTREAM OF VOGUS DITCH)	E. COLI	UPPER WABASH	5120107020030	HOWARD CO
INB0723_T1011	LITTLE WILDCAT CREEK (DOWNSTREAM OF VOGUS DITCH)	E. COLI	UPPER WABASH	5120107020030	HOWARD CO
INB0724_00	WEST HONEY CREEK	E. COLI	UPPER WABASH	5120107020040	HOWARD CO
INB0725_00	HONEY CREEK	E. COLI	UPPER WABASH	5120107020050	HOWARD CO
INB0725_T1011	WILDCAT CREEK - MAINSTEM	E. COLI	UPPER WABASH	5120107020050	HOWARD CO
INB0726_T1012	DEARINGER DITCH - KIDDLE DITCH	E. COLI	UPPER WABASH	5120107020060	HOWARD CO
INB0726_T1038	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020060	HOWARD CO
INB0726_T1039	WILDCAT CREEK - UNNAMED TRIBUTARIES	E. COLI	UPPER WABASH	5120107020060	HOWARD CO
INB0726_T1040	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020060	HOWARD CO
INB0726_T1041	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020060	HOWARD CO
INB0727_00	PETES RUN	E. COLI	UPPER WABASH	5120107020070	HOWARD CO
INB0727_T1010	DAVISON DITCH	E. COLI	UPPER WABASH	5120107020070	HOWARD CO
INB0727_T1011	MCDOWELL DITCH	E. COLI	UPPER WABASH	5120107020070	HOWARD CO
INB0727_T1012	MOORE DITCH	E. COLI	UPPER WABASH	5120107020070	HOWARD CO
INB0727_T1013	WILDCAT CREEK	E. COLI	UPPER WABASH	5120107020070	HOWARD CO
INB0727_T1037	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020070	CARROLL CO
INB0727_T1038	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020070	CARROLL CO
INB0727_T1039	WILDCAT CREEK (BURLINGTON) - UNNAMED TRIBUTARIES	E. COLI	UPPER WABASH	5120107020070	CARROLL CO
INB0727_T1040	WILDCAT CREEK - MAINSTEM	E. COLI	UPPER WABASH	5120107020070	CARROLL CO
INB0729_T1001	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020090	CARROLL CO
INB0729_T1002	WILDCAT CREEK (PRINCE WM RD)-UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020090	CARROLL CO
INB0729_T1003	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020090	CARROLL CO

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB0729_T1004	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107020090	CARROLL CO
INB0729_T1015	WILDCAT CREEK (U/S OF UNNAMED TRIBUTARY AT PRINCE WM RD)	E. COLI	UPPER WABASH	5120107020090	CARROLL CO
INB0729_T1016	WILDCAT CREEK (D/S OF UNNAMED TRIBUTARY AT PRINCE WM RD)	E. COLI	UPPER WABASH	5120107020090	CARROLL CO
INB072A_T1016	WILDCAT CREEK - MAINSTEM	E. COLI	UPPER WABASH	5120107020100	TIPPECANOE CO
INB0731_00	WILDCAT CREEK, MIDDLE FORK	E. COLI	UPPER WABASH	5120107030010	CLINTON CO
INB0731_T1041	WILDCAT CREEK, MIDDLE FORK HEADWATERS	E. COLI	UPPER WABASH	5120107030010	CLINTON CO
INB0731_T1042	WILDCAT CREEK, MIDDLE FORK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107030010	CLINTON CO
INB0731_T1043	WHITEMAN DITCH	E. COLI	UPPER WABASH	5120107030010	CLINTON CO
INB0731_T1044	HARNESS DITCH	E. COLI	UPPER WABASH	5120107030010	CLINTON CO
INB0732_00	WILDCAT CREEK, MIDDLE FORK	E. COLI	UPPER WABASH	5120107030020	CARROLL CO
INB0732_T1040	WILDCAT CREEK, MIDDLE FORK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107030020	CLINTON CO
INB0732_T1042	WILDCAT CREEK, MIDDLE FORK	E. COLI	UPPER WABASH	5120107030020	CARROLL CO
INB0732_T1043	MIDDLE FORK BRANCH - SCOFIELD DITCH	E. COLI	UPPER WABASH	5120107030020	CARROLL CO
INB0732_T1044	ROBERTSON BRANCH	E. COLI	UPPER WABASH	5120107030020	CLINTON CO
INB0733_T1027	SILVERTHORN BRANCH DOWNSTREAM OF ROSSVILLE STP	E. COLI	UPPER WABASH	5120107030030	CLINTON CO
INB0734_T1045	CAMPBELLS RUN - MAINSTEM	E. COLI	UPPER WABASH	5120107030040	CLINTON CO
INB0735_00	CRIFE RUN	E. COLI	UPPER WABASH	5120107030050	CLINTON CO
INB0735_T1046	CAMPBELLS RUN	E. COLI	UPPER WABASH	5120107030050	CLINTON CO
INB0736_00	WILDCAT CREEK (UPSTREAM OF TRIBUTARIES)	E. COLI	UPPER WABASH	5120107030060	TIPPECANOE CO
INB0736_01	WILDCAT CREEK (DOWNSTREAM OF TRIBUTARIES)	E. COLI	UPPER WABASH	5120107030060	CLINTON CO
INB0736_T1001	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107030060	TIPPECANOE CO
INB0736_T1002	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107030060	TIPPECANOE CO
INB0736_T1003	HOG RUN-UNNAMED TRIBUTARY	E. COLI	UPPER WABASH	5120107030060	TIPPECANOE CO
INB0736_T1004	HOG RUN	E. COLI	UPPER WABASH	5120107030060	CLINTON CO
INB0751_T1024	WILDCAT CREEK - OSRW	E. COLI	UPPER WABASH	5120107050010	TIPPECANOE CO
INB0751_T1028	WILDCAT CREEK	E. COLI	UPPER WABASH	5120107050010	TIPPECANOE CO
INB11G4_T1024	SULPHUR CREEK	IMPAIRED BIOTIC COMMUNITIES	LOWER WABASH	5120111160040	SULLIVAN CO

WATERBODY AU ID	WATERBODY AU NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB11G4_T1024	SULPHUR CREEK	pH	LOWER WABASH	5120111160040	SULLIVAN CO
INB11G4_T1024	SULPHUR CREEK	ZINC	LOWER WABASH	5120111160040	SULLIVAN CO
INC01A5_T1071	GALENA RIVER	E. COLI	GREAT LAKES	4040001100050	LA PORTE CO

*IDEM Response:* All of these AUIDs were resegmented for the 2010 cycle and retired. They were proposed for delisting under their original AUIDs with the understanding that IDEM would provide segmentation tracking to ensure the TMDL approval would be correctly carried over to the new AUIDs. However, because these impairments are still pending TMDL approval, IDEM has since delisted them based on their resegmentation and has added all but one to Category 5 under their new AUIDs for the 2010 cycle. IDEM will revise the TMDL to reflect the new segmentation and resubmit it to U.S. EPA for approval in the next cycle. The zinc impairment previously listed for INB11G4\_T1024 has been removed from Category 5 based on a change in Indiana's water quality standards from total metals criteria to dissolved metals criteria, which is explained in more detail in IDEM's finalized 303(d) list submission.

33) The following are reminders of information not currently included in the public notice documents that will be required for the final submittal:

- List of waterbody segments/ impairments in category 4B and up-to-date status information that demonstrates good cause for listing under this category.
- List of waterbody segments/ impairments in category 4C and up-to-date status information that demonstrates good cause for listing under this category.
- Indiana's priority ranking/ targeting of waterbody segments/ impairments for TMDL development over the next two years.
- Indiana's long-term schedule for TMDL development for all waters listed in Category 5.
- Copies of all the comment letters/ emails received during public comment period, and IDEM's responses.
- Resegmentation information.

*IDEM Response:* All of this information is included in Indiana's finalized 303(d) submission packet for the 2010 cycle.